IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

APPLICANT(s):   Ahti Muhonen   CONF. NO.:   6794

SERIAL NO.:   09/836,792   ART UNIT: 2617

FILING DATE: April 17, 2001   EXAMINER: Bryan J. Fox

TITLE: METHOD AND APPARATUS FOR SELECTING SYSTEMS, MODE,
                   AND FUNCTION IN AN ADAPTIVE TERMINAL

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APPELLANTS BRIEF

(37 C.F.R. §1.192)

This is an appeal from the final rejection of the claims in the subject application contained in the office action mailed November 21, 2006. A Notice of Appeal was filed on May 21, 2007 with a Request for Pre-Appeal Brief Review. A Notice of Panel Decision from Pre-Appeal Brief Review was mailed on July 20, 2007. A petition for a two-month extension of time is enclosed herewith.

[1] REAL PARTY IN INTEREST

The real party in interest in this Appeal is the assignee, Nokia Corporation, Espoo, Finland.

[2] RELATED APPEAL AND INTERFERENCES

There are no related appeals or interferences.

[3] STATUS OF THE CLAIMS

Claims 1 and 2, and 5-10 stand rejected under 35USC103(a) on the basis of the cited reference Van den Heuvel, G.B. Patent No. 2,294,844 in view of the disclosure of Bridges, et al, U.S. Patent No. 6,546,246 and further in view of the reference Sainton, et al, U.S. Patent No. RE38787. Claims 3 and 4 stand rejected under 35USC103(a) on the basis of the cited reference Van den Heuvel, in view of the disclosures of Bridges and Sainton, and in further view of the reference Henry, Jr. et al, U.S. Patent No. 5,603,084. These rejections are contained in the office action mailed November 21, 2006. Claims 1-10 are presented for consideration in this Appeal and are contained in the attached Claim Appendix.

[4] STATUS OF AMENDMENTS FILED SUBSEQUENT TO FINAL REJECTION

There were no amendments filed after Final Rejection.

[5] SUMMARY OF THE CLAIMED SUBJECT MATTER

A mobile station (1), according to independent claim 1, is shown in figures 2-3 and described from line 4, page 6 to line 12, page 7. Mobile station 1 is configured for use as a software radio having the capability for universal adaptive use within independent, globally dispersed cellular communication networks. A transceiver (17) is constructed for receiving data, relating to operational capabilities of said cellular networks, over a common system parameter channel from a local independent, globally dispersed network, i.e., base station 14, into which the mobile station (1) has traveled. The network data is received directly from the local cellular network and does not rely on any local area network or wireline system. A first processor, for example, subscriber characteristic module (23), is configured to compile and store the local network characteristic data. A second processor, for example subscriber identification module (22), is configured to compile and store subscriber identification data relating to operational capabilities of said mobile station. A third processor, for example, addressable processor (24) combines said network characteristic data and said subscriber identification data into an addressable matrix of operational capabilities (see fig. 5) and selects an operational configuration based on said matrix and predetermined criteria.

Independent claim 8 describes a method for execution in a mobile station, configured for use in a software radio. The method is described at page 7, lines 14-34 and comprises receiving data in a mobile station (1) over a common system parameter channel (16) from a local base station (14) that is part of an independent, globally dispersed cellular network into which the mobile station (1) has traveled. The data is received directly without reliance on any local area network or wireline system. The data includes network characteristic information relating to the local network which is compiled and stored. Subscriber identification data relating to the operational capabilities of mobile station (1) is also compiled and stored. The network characteristic data and the subscriber identification data is combined into an

addressable matrix of operational capabilities. An operational configuration, based on said matrix and predetermined criteria, is then generated.

[6] GROUNDS FOR REJECTION TO BE REVIEWED ON APPEAL

A. One issue presented for review is the propriety of the Examiner's rejection of claims 1, 2, and 5-10, under 35USC103(a) on the basis of the cited reference Van den Heuvel, G.B. Patent No. 2,294,844 in view of the disclosure of Bridges, et al, U.S. Patent No. 6,546,246 and further in view of the reference Sainton, et al, U.S. Patent No. RE38787. The rejection is contained in the Office Action mailed November 21, 2006.

B. A second issue presented for review is the propriety of the Examiner's rejection of claims 3 and 4 under 35USC103(a) on the basis of the cited reference Van den Heuvel, in view of the disclosures of Bridges and Sainton, and in further view of the reference Henry, Jr. et al, U.S. Patent No. 5,603,084. These rejections are contained in the office action mailed November 21, 2006.

[7] Argument

A.   The Examiner has failed to establish that the combined teaching of the cited references Van den Heuvel, G.B. Patent No. 2,294,844 in view of the disclosure of Bridges, et al, U.S. Patent No. 6,546,246 and further in view of the reference Sainton, et al, U.S. Patent No. RE38787, disclose or suggest each and every limitation of claims 1,2, and 5-10 of this application.

The Examiner has acknowledged that van den Huevel fails to teach that the subscriber unit will store identification information. The reference Bridges is cited to remedy this deficiency. The Examiner has further acknowledged that the combined teaching of van den Huevel and Bridges fails to teach receiving data over a common system parameter channel from a local one of said independent, globally dispersed networks into which the mobile station has traveled.

The acknowledged deficiencies of the teaching of van den Huevel and Bridges are not remedied by the teaching of the newly cited reference Sainton for the reasons stated below. The Examiner is attempting to combined systems that are significantly different in operation. There is nothing in these disclosures that would encourage a person skilled in the art to pick minor components of each reference to construct the system of this application. Applicant submits that this application is being used as template to obtain the system described in the claims under consideration.

In order to gain an understanding of the diversity of the teachings that are being combined a full understanding of the cited references is needed. The reference van den Heuvel teaches a system for providing a selection process for a subscriber to allow the use by a subscriber of certain features available in multiple communications systems 11-17 <u>coupled together by a common wireline system 18</u>. <u>It requires an initial contact with a common system 19 to receive information on available networks and their features.</u> The subscriber may select a desired network and feature, download the required software, and then contact the selected network.   This does not describe a

system that is global in scope, but only local. There is no capability for performing the functions from data stored on the mobile phone, but it is totally reliant on the service of the common system.

Accordingly, there are two intermediate entities required in the system of van den Heuvel, that are not required in the system of this invention, namely, wireline system 18, and a common communication system 19. The system of van den Heuvel is, therefore, limited in its application and cannot provide the globally adaptive function of the subject invention.

The rejection of claims 1,2, and 5-10 under 35USC103(a) combines the teaching of van den Heuvel in combination with the reference Bridges. The reference Bridges involves a system by which a mobile station, in roaming mode, may access another wireless network that has a preferred status by virtue of a prearrangement with the home provider. This is described in the reference Bridges, beginning at column 8, line 51 through column 9, line 1, as follows:

> **"The present invention relates to a mobile station with intelligent roaming and/or over-the-air programming features. The present invention permits a mobile station to immediately obtain service on a preferred cellular, PCS or other wireless network system meeting a subscriber's service requirements. The selection or designation of such a system carrier may be configured to comply with, for example, preferences of a corporation having a National Account with the home wireless carrier, when there are multiple bands available.**
>
> **According to an aspect of the present invention, a Preferred System Identification List (PSL) (for cellular systems) and/or an Intelligent Roaming Database Downloading (IRDB) (for cellular, PCS and other wireless systems) is stored within a memory or storage device of the mobile station. When the mobile station is roaming, the PSL or IRDB is accessed to indicate the band where the mobile station will find a preferred system."**

The system Bridges requires a list of preferred service providers, it does not contemplate service access through independent, globally dispersed cellular networks.

In addition, there is no indication of how or why the teaching of Bridges could be combined with the system of van den Heuvel. There is no processing of data received from a cellular system that is compiled with operational data of a mobile phone to form a matrix from which an operational structure can be formed according to predetermined criteria.

To remedy the deficiencies of the teachings of van den Heuvel and Bridges, the Examiner cites the reference Sainton and characterizes the teaching of Sainton as follows:

> **"A system is selected based on the user preferences or a preprogrammed routine by the unit (column 16, lines 32-58), which reads on the claimed, 'independent, globally dispersed networks into which the mobile stations the mobile stations have traveled, wherein said data is received directly without reliance on any local area network or wireline system'"**

Applicant respectfully submits that the Examiner is mistaken. The system of Sainton is limited to a network of wireless service providers that permit the borrowing of radio frequencies among the wireless service providers of the network. This network includes service providers within the same geographic region. This is clear from the abstract and the excerpt from Sainton cited by the Examiner, wherein Sainton indicates, at column 16, lines 28-30 as follows:

> **"As described above, circuit 1 will be capable of utilizing any one of the wireless data services within a given geographic area."**

and in the Abstract as follows:

> **"A network and method of operating a network of wireless service providers adapted to interact with a plurality of omni-modal wireless products within a given geographic area in a manner to permit the wireless service providers to "borrow" radio frequencies from other wireless service providers within the same geographic region." (emphasis added)**

The system of Sainton allows the borrowing of frequencies among service providers so that, as a cellular service provider in a given region experiences demands that overload its system, available frequencies may be borrowed from a competitive service serving the same region.

Based on the above description in Sainton, it is clear that the system of Sainton is not equipped for use among independent globally dispersed networks, as the Examiner has indicated. The combined teachings of van den Heuvel, Bridges and Sainton fail to support prima facie obviousness. Mobile stations used in the systems of van den Heuvel, Bridges, and Sainton are limited in their geographic use and are capable of use globally to provide adaptive function of the subject invention.

To obtain a teaching of the system described in the claims of this application, the Examiner requires the person skilled in the art to pick over the combination of the multiple communications systems of van den Heuvel, coupled together by a common wireline system and requiring an initial contact with a common system; with the system of Bridges involving a system by which a mobile station, in roaming mode, may access another wireless network that has a preferred status by virtue of a prearrangement with the home provider; and the system of Sainton that allows the borrowing of frequencies among service providers in a given region. Applicant submits that the only common thread among these references is the subject application and that, to advocate this combination as obvious to one skilled in the art, is a misapplication of the doctrine of obviousness.

The combined teaching of van der Huevel, Bridges, and Sainton is further traversed because there is no motivation in such diverse disclosures or in the knowledge generally available to one of ordinary skill in the art to obtain Applicant's invention by the proposed combination of disclosures. Neither reference provides the requisite suggestion or motivation to modify the references as proposed by the Examiner. The Examiner's proposition that Applicants' invention would be obvious as recited in the

claims is <u>not</u> supported by the combined teaching of the cited references. The Examiner is attempting to combine systems that are significantly different in operation.

B. The rejection of claims 3 and 4 based on the combined teaching of van den Heuvel, Bridges, and Sainton in further view of Henry (US5603084), is traversed on the same basis as stated above. Applicant submits that the above described deficiencies of the primary reference van den Heuvel are not remedied by the proposed combination with the teachings of the references Bridges and Sainton or Henry.
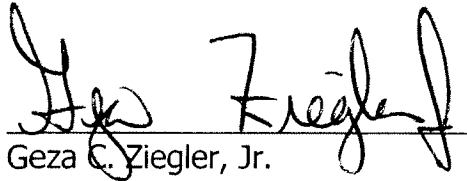
SUMMARY

The combined references do not, therefore, support a prima-facie case of obviousness with respect to any of the claims under consideration. The modification of the teachings of the cited references, in order to obtain the invention, as described in the claims submitted herein, would not have been obvious to one skilled in the art. The combine teaching fails to disclose or suggest a method or mobile station that is enabled for compiling and storing network characteristic data relating to operational capabilities of globally dispersed cellular networks, received over a common system parameter channel. The combined teaching does not disclose or suggest a method or a mobile station enabled for compiling and storing subscriber identification data relating to operational capabilities of the mobile station. Further the combined teaching fails to disclose or suggest a method or a mobile station enabled for combining the network characteristic data and the subscriber identification data into an addressable matrix of operational capabilities from which an operational configuration is generated.

It is respectfully submitted that all of the claims, as presented, are clearly novel and patentable over the prior art of record. Accordingly, the Board of Appeals is respectfully requested to favorably consider the rejected claims and to reverse the final rejections, thereby enabling this application to issue as a U.S. Letters Patent.

The Commissioner is hereby authorized to charge payment of $500 for the Appeal Brief as well as for any other fees associated with this communication or credit any over payment to Deposit Account No. 16-1350.

Respectfully submitted,

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I hereby certify that this correspondence is being transmitted electronically, on the date indicated below, addressed to the Mail Stop Appeal Board of Patent Appeals and Interferences, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date:_17 October 2007_   Signature: _Shannon D'Amico_

                                Shannon D'Amico
                                Person Making Deposit

[8] CLAIM APPENDIX

1. (previously presented)   A mobile station, configured for use as a software radio having the capability for universal adaptive use within independent, globally dispersed cellular communication networks, comprising:

a transceiver for receiving data over a common system parameter channel from a local one of said independent, globally dispersed networks into which the mobile stations has traveled, wherein said data is received directly without reliance on any local area network or wireline system;

a first processor for compiling and storing network characteristic data relating to said local one of said independent, globally dispersed cellular communication networks, received over said common system parameter channel, relating to operational capabilities of said cellular networks;

a second processor for compiling and storing subscriber identification data relating to operational capabilities of said mobile station;

a third processor for combining said network characteristic data and said subscriber identification data into an addressable matrix of operational capabilities; wherein said third processor further generates an operational configuration based on said matrix and predetermined criteria.

2. (previously presented)   A mobile station, according to claim 1, wherein said mobile station further comprises a main microprocessor controller and said first, second, and third processors are modules within said main microprocessor controller.

3. (previously presented) A mobile station, according to claim 1, wherein a portion of said operational characteristics of said mobile station are programmed into said second processor at the time of manufacture.

4. (previously presented) A mobile station, according to claim 1, wherein a portion of said operational capabilities of said mobile station are programmed into said second processor at the time of activation with a home cellular service.

5. (previously presented) A mobile station, according to claim 3, wherein said second processor further comprises a read only memory unit for storing said operational capabilities of the mobile station entered at the time of manufacture.

6. (previously presented) A mobile station, according to claim 4, wherein said second processor further comprises a programmable read only memory unit for storing said operational capabilities of the mobile station entered at the time of activation.

7. (currently amended) A mobile station, according to claim 1, wherein said first processor comprises an erasable, programmable read only memory.

8. (previously presented) A method for use in a mobile station, configured for use as a software radio having the capability for universal adaptive use within independent, globally dispersed cellular communication networks, said method comprising the steps of:

    receiving data over a common system parameter channel from a local one of said independent, globally dispersed networks, wherein said data is received directly without reliance on any local area network or wireline system;

    compiling and storing network characteristic data relating to said local one of the independent, globally dispersed cellular communication networks, received over said

common system parameter channel, relating to the operational capabilities of said cellular networks;

compiling and storing subscriber identification data relating to the operational capabilities of said mobile station;

combining said network characteristic data and said subscriber identification data into an addressable matrix of operational capabilities;

generating an operational configuration based on said matrix and predetermined criteria.

9. (previously presented) A method for use in a mobile station, according to claim 8, wherein the predetermined criteria comprise at least one of cost, speed, and volume of data.

10. (previously presented) A method for use in a mobile station, according to claim 1, wherein the predetermined criteria comprise at least one of cost, speed, and volume of data.

[9] Evidence Appendix

N/A

[10] Related Proceedings Appendix

N/A